DIAGNOSTIC CHALLENGE OF A GASTRIC GLOMANGIOMA MIMICKING AS A GASTROINTESTINAL STROMAL TUMOR: A CASE REPORT

Muhammad Imran, Nahel Chaudhry, Saad Ehsan, Muhammad Awais Majeed, Sameen Bin Naeem

Shaukat Khanum Memorial Cancer Hospital and Research Centre, Medical Oncology, Lahore, Pakistan

INTRODUCTION

Glomus tumors are rare benign mesenchymal neoplasms arising from glomus bodies, specialized arteriovenous shunts in the dermis responsible for thermoregulation. They are usually located in the distal extremities and constitute about 2% of all soft tissue tumors.

Gastric glomus tumors (GGTs) are exceptionally uncommon, representing less than 1% of all gastric neoplasms, and are most frequently found in the gastric antrum. Their clinical and radiological overlap with other submucosal lesions such as gastrointestinal stromal tumors (GISTs) makes preoperative diagnosis difficult. Histopathology and immunohistochemistry are essential for accurate identification.

CASE REPORT

A 54-year-old female presented with persistent epigastric burning, loss of appetite, and progressive weight loss. Her medical history included hypothyroidism, treated pituitary microprolactinoma, hypertension, and major depressive disorder.

Esophagogastroduodenoscopy (OGD) revealed a smooth submucosal bulge involving the distal gastric body and pylorus. Endoscopic ultrasound (EUS) showed a well-defined, hypoechoic lesion (1.8 × 2.4 cm) arising from the muscularis propria. Fine-needle biopsy demonstrated an epithelioid neoplasm negative for CD117, DOG1 (GIST markers), SMA, desmin (leiomyoma markers), and S100 (schwannoma marker).

Contrast-enhanced CT of the abdomen revealed a 2 cm enhancing mass along the greater curvature near the gastric body-antrum junction, with no lymphadenopathy or metastasis. Thoracic CT was also unremarkable.

The patient underwent laparoscopic distal gastrectomy. Histopathology confirmed an epithelioid neoplasm consistent with a gastric glomangioma (glomus tumor). The tumor stained positive for SMA and vimentin, and negative for CD117, DOG1, S100, desmin, and CD34. The Ki-67 index was ~1%, with no atypia, necrosis, or mitotic activity. Margins were clear, and 14 lymph nodes were reactive but negative for malignancy.

The postoperative course was uneventful. No adjuvant therapy was needed. On follow-up imaging, there has been no recurrence or metastasis, and the patient remains asymptomatic under regular surveillance.

Fig 1: CT Thorax showing 2 cm enhancing mass in the gastric antrum.

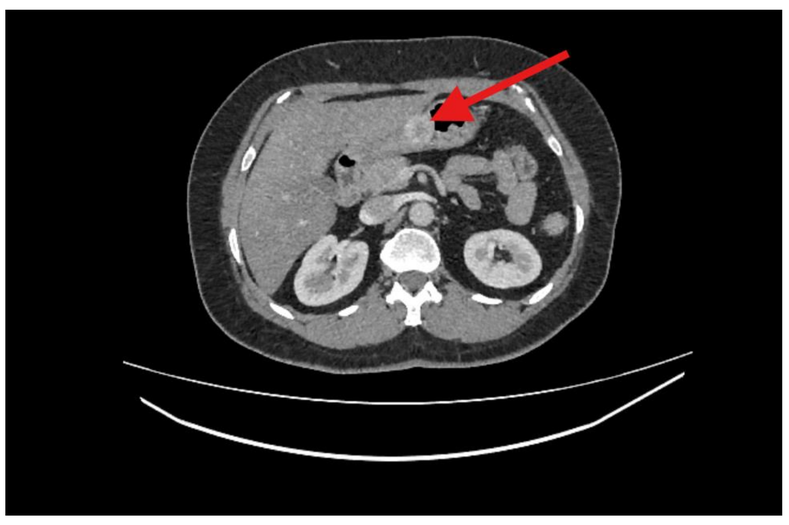


Figure 2: CT Chest and Abdomen showing round circumscribed enhancing mass along the greater curvature of the stomach at the junction of the gastric body and antrum, worrisome for neoplasm.

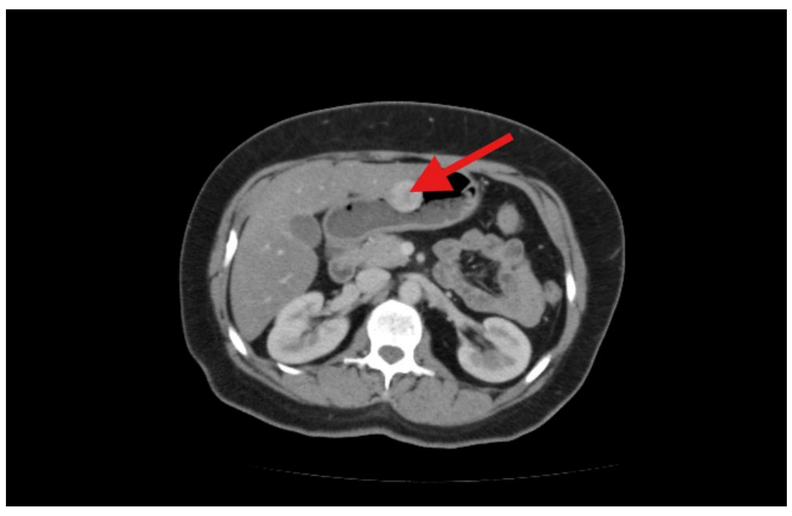
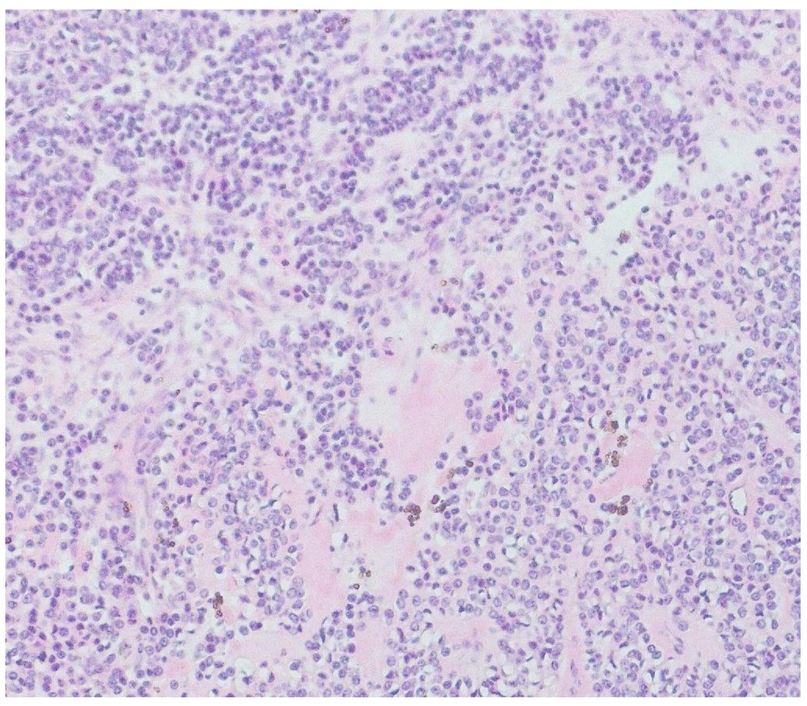


Figure 3: H/E stains slide of Glomus Tumor
Section show neoplasm composed of neoplastic cells having round shape with indistinct borders and branching capillary sized vessels lined endothelial cells.



CONCLUSION

Gastric glomangioma, though rare, should be considered in the differential diagnosis of submucosal gastric tumors. Accurate diagnosis requires a combination of imaging, histopathology, and immunohistochemistry. Surgical resection offers an excellent prognosis in benign cases.

CASE REPORT

Gastric glomus tumors (GGTs) are rare benign mesenchymal neoplasms, first described by Kay et al. in 1951. They account for ~1% of all gastric tumors and often mimic other submucosal lesions such as GISTs, carcinoids, and schwannomas.

Although glomus tumors usually arise in the subungual region, they have also been reported in organs like the trachea, mediastinum, kidney, and uterus. GGTs predominantly affect middle-aged females and are commonly located in the gastric antrum. Patients may be asymptomatic or present with epigastric pain, dyspepsia, or upper GI bleeding.

In our case, the patient presented with anorexia, dyspepsia, and weight loss. Diagnosis required detailed imaging and histopathological evaluation, highlighting the difficulty of preoperative identification.

Malignant transformation is rare (<1%). Suspicious features include tumor size >2 cm, high mitotic activity (>5/50 HPF), deep location, and nuclear atypia. CT and MRI are non-specific, while EUS-FNA improves diagnostic yield.

Histologically, GGTs express SMA, vimentin, and calponin, but are negative for CD117 (KIT), distinguishing them from GISTs. Surgical excision with clear margins remains curative. Endoscopic submucosal dissection can be considered for smaller lesions.

Although formal guidelines are lacking, long-term follow-up is advised to detect rare recurrences. Prognosis is excellent after complete resection.

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